An

Inaugural Dissertation

On

Haemoptysis

For

The Degree

Of

Doctor of Medicine

In

The University of Pennsylvania

By

Henry Lippincott

of

Fallsington

Pennsylvania

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To John Phillips M.D.
Of Bristol Pa.

Dear Sir,

I feel anxious, in departing from you (under whose immediate and benevolent care have been directed my medical studies,) that I may be permitted the privilege of thus publicly returning you my most cordial thanks for the many distinguished services and attentions I have received, and hope that you will allow me to solicit a continuance of them, together with that confiding friendship, by the influence of which I have so often been benefitted.

To you therefore, as a person extensively acquainted with the Medical science, and whose usefulness in the practice of the profession, justly merits the distinguished reputation you have so happily acquired,

This dissertation is respectfully inscribed,

By your friend and pupil,

H. Lippincott.

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To the Medical Professors of the
University of Pennsylvania.

Gentlemen,

Being sensible of the very profitable information I have derived from your valuable and interesting Lectures, I am prompted to take the liberty of thus publicly tendering you my most respectful acknowledgments; as also for the many parental cautions with the good and instructive advice (so necessary to the young practitioner) you have so often been pleased to intersperse throughout the Lectures of your individual and respective courses.

That the public may long continue to receive the salutary effects and experience of your endless researches and improvements is the most ardent wish of,

Gentlemen

Your humble and
Obedient servant

T. Lippincott

Symptoms of Haemoptysis.

This disease means in the full acceptation of the term, a dis-
-charge of blood from the lungs, and it usually comes on with a
sense of lightness, weight, or anxiety in the breast affecting the or-
-gans of motion, which are increased on full inspiration; some-
-times there is a slight uneasiness of breathing, and a short
tickling cough, which is much increased by moderate exer-
-cise:- Symptoms of fever are also present, such as shivering
sensations, coldness of the extremities, slight pains in the back
and loins, a sensation of heat under the sternum, flushed coun-
-tenance, lassitude, flatulence, costiveness, a dry skin, & hard
pulse; but still we must admit that these are subject to
great variety, for I myself have seen the pulse full, soft,
and frequent. Yet it sometimes comes on suddenly without
any such warnings as just mentioned, the flow of blood be-
-ing the first and only symptom observed, and this is said
to be immediately preceded by a saltish taste in the mouth,
with somewhat of coughing from a slight tickling sensation
being felt at the top of the larynx, to relieve this a hawking is

made, which brings up from the lungs a small portion of blood of a florid arterial colour, and of a frothy appearance, which is quite sufficient to characterize the disease; the irritation soon returns and in the same manner more is brought up with a rattling noise in the windpipe; the tongue generally wears a natural appearance; there is nothing worthy of notice in the blood drawn from a vein, except there exist a scrofulous predisposition in the system, in which, my Preceptor informs me he generally finds the blood sizy.— This is commonly the manner in which Hæmoptysis begins; in some instances the blood that is discharged is in very small quantity, and ceases spontaneously or is stopped by the remedies employed; in other cases a slight spitting continues for several days together, and is often renewed on very slight exertions.

Of the Remote Causes.

Having now given in as brief and concise a manner as possible some of the principal symptoms by which this disease may be characterized, I shall next proceed

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The second and not little moment is that of a copious and [illegible] when it claims, perhaps as much share in attention with the first to receive from a consideration of it seems a compliment that is more valued in it [illegible] presents and more deserved to [illegible]. Persons in [illegible] age are therefore more [illegible] to [illegible] and [illegible] under [illegible] in [illegible] cases open [illegible].

If there [illegible] cause may be considered, the [illegible] time of life in which it [illegible]. It was a marked [illegible] and [illegible] confirmed by modern observation in [illegible] cases, [illegible] in [illegible] between the ages of puberty and thirty-five. [illegible] rarely happens to children under twelve years of age, and is not prevalent under that age, [illegible] whatever cause it may be ascribed, the fact is undeniable that there is a remarkable [illegible] tendency to [illegible] from the [illegible] of this period of life.

Of the Exciting Causes.

These we find are very numerous some acting

more immediately upon the mind and then indirectly through the medium of the sensual system. Time which are considered the most innocent and that act directly upon the weak blood and feeble nerves of more delicate constitutions, as in the violent action either in running, jumping, lifting, throwing weights or swimming; and yet we see in harmony as long and such that time, having in hand instruments of music, instead of madness, strong exertions of the mind, of deep study and of serious thought. Those which are innocently and well exercised, except the drinking, in things are which is so much neglected by great men in corners in not close rooms and crowded assemblies;- it is some also from some considerations, where the combination of the weight of the atmosphere which apparently on occasions the same effect, that is instanced in those exceeding very high mountains, which have been fully verified by Dr. Dalton, Gay Lussac and Baron Humboldt.

And in further confirmation of the above remarks.

instance in Edinburgh of severe cases of Pneumonia, merely recovered by an abstraction of an ounce of blood from the arm, or in a found cyanosis at the time of the barometer, may at least serve to induce us to institute a more careful examination of the patient. It may also serve to prevent us from a disregard of some accidental cause, peculiar constitution, the more prevalent influence of which in particular in origin the calamitous disease has been attributed, and also to note of a numerous combination, which have for years not discovered, nor we increased ulcers, the cause of which is to be found in diseases of long standing. These have been neglected often have indeed a cause or some other constitutional symptom. But under these circumstances should the surgeon not be an innovation, "remember" it is to be marked, "that the patient, taken with a short time, will generally well out in the course of a few months, without disorder of some of the internal organs and of the minor especially shortness, & death in a short time follows." +

+ Gibson's Surgery - edit. 2nd. Vol. 2nd. p. 406.

Sputum

We must acknowledge that it is not always easy to determine from what internal part it in fact proceeds when thrown out of the mouth, whether it be from the stomach, mouth, fauces, trachea, &c. or from any cavities of the nose or ears.

To distinguish Sputum from Hematemesis which it most resembles, we are to recollect that hemorrhages from the stomach are not attended by any pulmonary affection whatever, neither is there any cough, dyspnoea, pain or oppression in the chest; the blood is not mixed with the vomitings, and is uniformly known by its dark, black, and grumous appearance as also by being mingled with the contents of the stomach, and is commonly in greater quantity than when it proceeds from the lungs; the pulse is much more raised from a hemorrhage of the stomach than from the lungs.

It is distinguished when coming from the internal surface of the mouth, by its being unaccom-

-panied with cough, dyspnoea or hawking, neither is there any pain or oppression in the thorax; and moreover may easily be seen by an examination.-

When the blood proceeds from the fauces, pauces, or adjoining cavities of the nose it may be expectorated by mere hawking, and generally it is of a less florid or arterial colour than when it is brought from the lungs.-

The appearance of the blood and the manner in which it is brought from the lungs has already been noticed.-

Prognosis.

Of the prognosis of diseases, it will be admitted, that the art is often very hazardous and embarrassing, particularly to predict with any degree of certainty on the termination of diseases, that are so frequently involved in obscurity, together with the consideration that patients often recover under very unfavourable circumstances, whilst others have died

when the most favourable prognostics attended them: But of the present disease Dermoïdes, I think it is very rarely attended with considerable danger. Professor Chapman has seen but one case of death from its existence, & it took its course of nine years and even longer. As far as the tissue is adventitious and is the mere effusion of mucus it cannot be considered as cancerous, neither can it be considered dangerous since no instances of Pulmonary tubercles preceded or accompanied its formation.

I am sorry to detain my readers, but where there is a strumous diathesis or an hereditary predisposition to Pulmonary tubercles, dermoïdes almost invariably terminates in consumption. We find the prognosis to be unfavourable when the effects of the cyst become injurious from its pressure upon other parts, and also when it attains a size of a tender and delicate nature. Especially when met with in females as a symptom of the extraordinary disease, often the precursor of pulmonary consumption, it may be considered as an affection of the most dangerous importance

Treatment.

In the treatment of Hemorrhages our first attention must be directed to check the immediate effusion of blood and to this purpose the reduction of the arterial system by venæsection claims our notice and that we may derive immediate benefit from the lancet, it is necessary to make a large orifice in the vein that the system feels the impression more fully, and the flow of blood is immediately diverted from the vessel which shall then be treated accordingly. Cupping only produces a temporary relief from, and the patient is unnecessarily troubled and inconvenienced, which under these circumstances should always be carefully avoided. Closely connected to blood-letting in its effect is nitre, prevent the internal exhibition of the Chloride of Sodium, now very popular in checking the hemorrhage. It is generally administered in the dose of a teaspoonful every five or ten minutes according to circumstances, directing the patient to take it in a dry state and as it gradually dissolves in his mouth to swallow the solution of degrees. He also

of exercise should be avoided that would have a tendency to increase the circulation and more, necessarily that of breathing. Cold air should be permitted to pass freely through the apartment being careful at the same time to cover the patient lowered with a few well clothes or no more. In addition to the above may be administered one or more cold circulated drinks. Much benefit has also resulted from the use of cold applications to the chest and arm pits which are very susceptible to the action of cold.

These remedies failing our last resource may be to the iodide of lead in the dose of two or three grains combined with the fourth or sixth of a grain of opium given every two or fours this is a remedy I have employed with great advantage on several occasions.

Rhus has claimed the attention of some practitioners as a remedy in hemorrhage but it is other cases claimed to prevent the occurrence than to check it.

The sulphates of zinc and copper given in small doses to excite nausea may be of service.

Of the vegetable astringents Kino and Catechu have been employed but as their utility is not limited they have been superseded by the more active preparations of the Materia Medica. As a remedy, Hopkins Cort recommends favourably of the whole oak bark in decoction.

Sicilia is presently employed in this disease but the case in which it seems most particularly appropriate is that wherein the discharge of blood is slight, and there exists a racking cough, pain in the side and breast together with much weakness or in other words where symptoms of pulmonary disease continue after the violence of the first attack is subsided. Under these circumstances I would recommend the Prussic acid as a remedy.

As one of the modes of treating Haemoptysis I find that Emetics have been employed for a long time; they were originally introduced in the treatment of this disease by Dr. B. Robinson of Dublin. In employing them it would be wise to resort heretofore to other remedies, unless the system be reduced to that state wherein

there is but a slight deviation, they then may be considered as liquor and poison. I am not unconscious that it has been said that Dr. Coates who is considered a good authority was in the habit of administering to children of tender years, and who consider in men above all other means, in spite on account of their dately & delicacy. But on the whole I would consider in most cases than to administering them could be in the way form in the case of remedies. The immediate effect was seen more and with decided advantage in people in more years given in small doses.

A solution of the sulphate of zinc has been highly recommended for the same purpose by a celebrated physician and the late Dr. Dixon. The remedy is considered to be a valuable and more important remedy and should be given according to the necessity of the case in small doses from a day to two years, or what may answer better to combine with each dose about the fourth or sixth of a grain of Opium.

The repressant medicines are sometimes employed

in the treatment of Pulmonary Hemorrhage. Among which are the neutral salts and many of the acids. The Nitrate of Potash is the most useful especially in reducing vascular action, febrile heat and excitement. It may be given in the dose of ten to thirty grains, taking care that it does not excite constipation, or it may be combined with minute doses of the antimonial preparations. A still better mode of administering this medicine is by dissolving an ounce of it in a quart of water, and so take the whole of it in the course of a day. If it should be given in such quantities as to operate on the kidneys it is said that beneficial effects will also result from the practice.

In addition to the preceding remedies I find that the Narcotics have been employed with some advantage upon the principle of quieting irritation and subduing arterial action. The Digitalis which is generally considered to be associated with this class I have already spoken. To which I may add the Cicuta and Henbane and Opium. If the Cicuta and Henbane

I have no knowledge in the treatment of the present disease. Whilst opium by its sedative effect has proved very beneficial although deemed by some practitioners as a stimulant, which, to such may be the case; yet the fact must be admitted that its effects are undeniable, particularly when the hemorrhage has been aggravated by the irritation being kept up in the pulmonary organs by the action of coughing or dyspnoea.

As yet I have not noticed the state of the bowels, which should not be neglected; as soon as the flow of blood is checked the saline purgatives, such as the Epsom salts &c. might be given from their operating with the least nausea or irritation. Castor oil if the stomach can retain it answers very well. Magnesia is apt to excite coughing, unless it be accumulated with lemon juice, or some acid drink after taking it. When the pulmonary affection is combined with some disorder of the digestive organs, the blue pill is recommended by Dr. Abernethy, every

other night, to be worked off the next morning by Epsom salts or Cream of tartar.

I have now given the general plan of treatment that is commonly adopted by the most eminent practitioners for the relief of active hemorrhage from the lungs, and will next say a few words on Passive hemorrhage, or that of debilitated action in which there is a weakness of the pulse with much emaciation; it mostly happens to the valetudinary, and it is not uncommon to find the patient so much exhausted that we are deterred from bleeding; this circumstance is oftentimes owing to the urgent demand made on the lungs which consequently become congested, hence the indication here is clear, that we must at once interrupt and diverse these morbid circumstances; and to effect this in the most efficacious manner we immediately resort to cupping or leeching, seeing at the same time a tea-spoonful of the tincture of Iron every half hour. After we are fully assured the blood is removed

from these conversed parts it will be proper to support the tone of the system by the use of the sulphate of Quinine or the Peruvian bark. One of the Mineral acids, which claim attention in this stage of the disease, the Sulphuric and Nitric are preferred, merely to suppress the bleeding the sulphuric is the best, but to relify the system the Nitric is most commonly employed.

With these remedies we generally beat feeble or halfway hemorrhage from the lungs, to which may be added, provided the patients system be recruited, the hand, the natural use of moderate exercise on horseback, or some thing diet as milk and eggs; and by malt liquors especially Porter.

As Hemoptysis is sometimes connected with constitutional affections, there is a liability of its recurrence from any slight provocation to avoid which the following precepts should be strictly observed.

1st — Avoid every circumstance which would have

a tendency to increase the circulation, hence we should direct a mild diet, gentle exercise, and a perfect abstinence from exciting causes of every kind.

2ly.– Avoid taking cold by every possible precaution, for nothing is so apt to produce a recurrence of the hemorrhage as catarrh.

3ly.– In cases where there is a strong predisposition to this disease, strict attention must be paid to the state of the chest, pulse, and respiration; which must all be regulated by the discriminating judgment of the practitioner.

4ly.– If there exist any local affection, much good will result from the use of blisters or setons.

5ly.– In obstinate cases salivation may be resorted to, by which the disease may possibly be supplanted.

I shall conclude by observing, that it sometimes happens with our very best treatment, that the disease resists all our endeavours,

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when as a last resource we should advise the removal of the patient to a warm climate and if possible to have him removed thither by a sea voyage.-